

## The type localities of some plants first described from West Virginia

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In determining the exact usage of the scientific names of plants it frequently is of very great importance to know the exact locality of collection of the specimens upon which the species were established. Specimens from the type locality of a species might be expected to resemble the type much more closely than specimens collected in other localities. However, in the early days of taxonomy there was no definite concept of types and type localities. Botanists simply assigned to their new specimens large, indefinite areas such as "Virginia," "Carolina," or "Pennsylvania," which are still more vague today because of changes in the applications of the geographical names.

Standley (*Contrib. U.S. Nat'l. Herb.*, 13: 143-227. 1910) has undertaken the preparation of a list of type localities of plants from New Mexico. In his list of 690 plants from that state, he calls attention to the much greater difficulty that would be encountered in such a compilation for one of the Eastern states because of the obstacles mentioned above.

The present paper has been prepared merely as an introduction to this problem. For the most part, the types enumerated here are comparatively recent, after the type concept has become well established. Designation of the type localities of the plants described by such early explorers of West Virginia as Michaux, Kin, Pursh, or Rafinesque would be very difficult, in many cases impossible. It is especially difficult to locate West Virginia stations in the field work of the early botanists from the fact that their labels often read simply "Virginia." Before 1784 Virginia extended indefinitely from the Atlantic coast to and beyond the Ohio River, while the boundaries of West Virginia were not established until 1863. Then, too, the country was so thinly settled and localities so uncertainly named that to ascribe definite geographic places to collected plants was impossible to the traveller. Further research, however, will doubtless add several names to this list.

White Sulphur Springs, in Greenbrier County, is remarkable for the number of plants described from that locality. The reason for this is that the well-known summer resort, often

visited by botanists, lies within the area of the shale barrens, which possess the most interesting portion of the state's flora, including many endemics. These have since been discovered in more remote districts, 100 miles or more from the original locality.

A number of varieties and forms of common plants were described by Dr. C. F. Millspaugh from Morgantown during the tenure of his stay there as Botanist of the Agricultural Experiment Station. The types of these plants are, for the most part, filed in the Herbarium of West Virginia University. A few appear to have been lost in the various vicissitudes to which the herbarium was exposed before it reached its present permanent quarters in Science Hall.

Under each species in the list, the author has attempted to give, usually quoted verbatim, the type locality, type number, date of collection, and any other important data. Where possible the accepted name for each species is given when the name listed has been found to be a synonym. Unless otherwise stated the name is to be taken as representing a good species.

Forty-five species, varieties and forms are here listed:

1. *Polypodium vulgare* forma *biserrata* Millsp., Prel. Cat. Fl. W. Va. p. 479, 1892. "A form found upon mossy boulders along the Blackwater Fork of Cheat; with regularly doubly-serrate divisions of the thinnish fronds," *Millspaugh*.
2. *Polypodium vulgare* var. *deceptum* Maxon, Proc. Nat. Mus., 23: 628. 1901. "Type in the U.S. National Herbarium, Smithsonian Institution, collected by E. L. Morris, No 1215, on rocks along the Guyandotte River below Baileysville, Wyoming County., W. Va., Alt. 1100-1250., August 13-19, 1900. This fern has already been briefly characterized by Dr. Millspaugh as *Polypodium vulgare* forma *biserrata*. The name, *biserratum* being already preoccupied by a Mexican fern it becomes necessary, in referring to the West Virginia plant, to substitute a new name." (*P. virginianum* forma *acuminatum* (Gilbert) Fernald, Rhodora 24: 141. 1922, fide Wherry ms.).
3. *Polypodium virginianum* forma *cambricoides* F. W. Gray, Amer. Fern Journ. 14: 5. 1924. Rock ledges northeast of Peterstown, Monroe Co., *Gray*.
4. *Camptosorus rhizophyllus* forma *angustatus* F. W. Gray,

- Amer. Fern Journ. 14: 11. 1924. Boulder in field near Alderson, Monroe Co., *Gray*.
5. *Asplenium Stotleri* Wherry, Amer. Fern Journ. 15: 52. 1925. Schist cliff on west bank of Shenandoah River, south of Keys Ferry, Jefferson Co., *Wherry*.
  6. *Brachyelytrum aristosum* var. *glabratum* Vasey, MSS. Prel. Cat. Fl. W. Va. 469. 1892. "A new variety discovered by Mr. L. W. Nuttall. It agrees with the species except that it is perfectly smooth, and has an awn-pointed second glume which is about one-half the length of the flowering glume. Its most striking peculiarity is that it has invariably two culms from each root-stock. High rocky woods. Fayette, near Nuttallburg, rare."
  7. *Agrostis alba vulgaris* forma *aristata* Millsp., Prel. Cat. Fl. W. Va. 469. 1892. "Damp meadow lands. Monongalia, along Falling Run," *Millsbaugh*. 244. June 2, 1890. Type in Herbarium of West Virginia University. = *A. canina* L.
  8. *Poa compressa* forma *depauperata* Millsp., Prel. Cat. Fl. W. Va. 472. 1892. "On rocks. Monongalia, along Falling Run, especially at the Cascade," *Millsbaugh*.
  9. *Panicularia nervata* forma *major* Millsp., Prel. Cat. Fl. W. Va. 473. 1892. "Monongalia: sand bars in Monongahela River near Little Falls," *Millsbaugh*.
  10. *Carex Muhlenbergii* Schk. var. ————— Millsp., Prel. Cat. Fl. W. Va. 463. 1892. "Intermediate between type and var. *enervis* Bailey. Valley Bottoms, Cricard, Randolph Co.," *Millsbaugh* 473. Type in Herbarium of West Virginia University.
  11. *Carex fraseri* Andr., Bot. Rep. pl. 639. 1811. Described by Muhlenberg, (Desc. über Gram., etc., 265. 1817) under *C. lagopus*? Muhlenberg adds, "Habitat in Tyger-valley, Pennsylvania, eunde siccam habeo et vivam." Tygart's Valley lies completely in West Virginia and, to my knowledge, this plant has never been found in Pennsylvania. Original collection by Matthias Kin, about 1800; type in Berlin Botanic Garden.
  12. *Allium oxyphilum* Wherry, Journ. Wash. Acad. Sci. 15: 370-372. 1925. Open woods along road 1¼ mi. west-north-west of Lillydale, Monroe Co., Type in United States National Herbarium, *Wherry*.

13. *Trillium erectum* var. *declinatum* Millsp., Prel. Cat. Fl. W. Va. 453. 1892. "Gilmer, near Glenville; Mason, near Point Pleasant; Jackson, near Ravenswood," *Millspaugh*.
14. *Eriogonum Alleni* Watson, in A. Gray, Man. Ed. 6, 734. 1890. "Near White Sulphur Springs, W. Va., T. F. Allen." Type in Gray Herbarium, Harvard University.
15. *Polygonum persicaria* forma *albiflora* Millsp., Prel. Cat. Fl. W. Va. 342. 1892. "A pure white-flowered form abundant near Point Pleasant." *Millspaugh*.
16. *Syndesmon thalictroides* forma *rosea* Millsp. Prel. Cat. Fl. W. Va. 319. 1892. "A beautiful rose-colored clump of the species has persisted for two years. In Monongalia at Little Falls near the Cascade," *Millspaugh*.
17. *Clematis albicoma* Wherry, Journ. Wash. Acad. Sci. 21: 198. 1931. "*C. ovata* of current manuals, not Pursh. So far as recorded this plant was first collected on Kate's Mountain by Gustav Guttenberg in 1877. It differs from *C. ovata* in the respects enumerated in the key, and accordingly requires a new name, which is appropriately derived from its most unique character, the whitish hairs on the achene-appendages. It occurs on various shale-barrens; Kate's Mountain is taken as the type locality of the species, and as type specimen should be designated: Guttenberg, July 31, 1877. (U.S. Nat'l. Herb.). (*Viorna albicoma* Moldenke. Bull. Torr. Bot. Club 60: 57. 1933.)
18. *Delphinium tricorne* forma *albiflora* Millsp., Prel. Cat. Fl. W. Va. 322. 1892. "Monongalia: Prevalent near Stumptown. The flowers are pure white with no trace of blue," *Millspaugh*, May 9, 1892. Type in Herbarium of West Virginia University.
19. *Aconitum vaccarum* Rydb., Torreyia 26: 31. pl. 1. 1926. "Type collected on the east slope of Spruce Knob, West Virginia, P. A. Rydberg. 9206. Herb. N.Y. Bot. Gard."
20. *Heuchera alba* Rydb., Torreyia 26: 31. pl. 2. 1926. "Type collected on the northeast slope of Snowy Mountain, Pendleton County, West Virginia, opposite Simmons' farm, June 17, 1925, P. A. Rydberg. 9026. Herb. N.Y. Bot. Gard."
21. *Hydrangea arborescens* var. *Kanawhana* Millsp., Prel. Cat. Fl. W. Va. 363. 1892. "Along the Little Kanawha River from Kanawha Station to Glenville," *Millspaugh* 291, July

- 1, 1890. Type in Herbarium of West Virginia University.
22. *Spiraea virginiana* Britton, Bull. Torr. Bot. Club 17: 314 1890. "On damp rocks along the Monongahela River, Morgantown, West Virginia, collected by Dr. C. F. Millspaugh in flower, June 20, 1890, and in apparently imperfect fruit late in September." Type found in Herbarium of New York Botanical Garden.
23. *Rubus odoratus* var. *columbianus* Millsp., Prel. Cat. Fl. W. Va. 355. 1892. "Monongalia: cool woods, Tibbs Run," *Millspaugh*. (*R. columbianus* Rydb.). Type in Herbarium of the New York Botanical Garden.
24. *Rubus Millspaughii* Britton, Bull. Torr. Bot. Club 18: 356. 1891. "Near the summit of Point Mountain in Randolph County at an altitude of 3,500 ft., also along the Gandy in great profusion, C. F. *Millspaugh*." Type in Herbarium of the New York Botanical Garden.
25. *Trifolium virginicum* Small, Mem. Torr. Bot. Club 4: 112. tab. 75. 1894. "Growing on the rocky slopes of Kate's Mountain, Greenbrier County, W. Va., in company with *Clematis ovata* (Small; Mackenzie; Heller 843)." Type in Herbarium of the New York Botanical Garden.
26. *Chamaecrista nictitans commixta* Pollard & Maxon, Proc. Biol. Soc. Wash. 14: 163. 1901. "Collected by Charles L. Pollard and William R. Maxon in alluvial soil along New River at Quinnimont, Fayette Co., W. Va., August 21, 1899. Their No. 31, the type, is in the National Herbarium as No. 357,069." (*Cassia nictitans commixta* (Poll. & Max) Millsp. Liv. Fl. W. Va. 283. 1913).
27. *Polygala sanguinea* forma *albiflora* Millsp., Prel. Cat. Fl. W. Va. 333. 1892. "In the glades of Webster and Preston Counties," *Millspaugh* 554, July 15, 1890. Type in Herbarium of West Virginia University.
28. *Acalypha virginica* forma *intermedia* Millsp., Prel. Cat. W. Va. Fl. 436. 1892. "A form apparently uniting *A. virginica* L. with *A. caroliniana* Ell. especially in the matter of leaves and bracts, is found near Nuttallburg, and Hawk's Nest as well as along New River opposite Hinton," *Millspaugh*, 1114, Aug. 11, 1891. Type in Herbarium West Virginia University.
29. *Opuntia calcicola* Wherry, Journ. Wash. Acad. Sci. 16: 12.

- fig. 1. 1926. "As the type locality may be designated an occurrence on the west side of the B. & O. R.R. tracks, a short distance north of Bolivar, Jefferson County, West Virginia. Type specimens, collected here on June 9, 1925, have been deposited in the U.S. National Herbarium (No. 1,242,156, type) and the New York Botanical Garden" Wherry.
30. *Ludwigia alternifolia* var. *linearifolia* Britton, Bull. Torr. Bot. Club 17: 315. 1890.
  31. *Oenothera argillicola* Mackenzie, Torreyia 4: 56. 1904. "Open sunny clay banks and along rivers, in loose rocky soil. Near White Sulphur Springs, August 27, 1903. Mackenzie 373." Type in Herbarium of New York Botanical Garden.
  32. *Oenothera fruticosa* var. *differta* Millsp. Prel. Cat. W. Va. Fl. 366. 1892. "Damp meadows. Wood (County): near Lockhart's Run, the most common form," Millspaugh 286, July 1, 1890. Type in Herbarium of West Virginia University.
  33. *Kneiffia longipedicellata* Small, Bull. Torr. Bot. Club 23: 178. 1896. "Moist places, Long Glade, Webster Co., W. Va., Millspaugh 579, July, 1890. (*Oenothera longipedicellata* Robinson, Rhodora 10: 34. 1908.) Type in the Herbarium of the New York Botanical Garden.
  34. *Pseudotaenidia montana* Mackenzie, Torreyia 3: 159. 1903. "In dry open woods, in a clayey soil intermixed with loose rocks. Side of Kate's Mountain, Greenbrier Co., August 29, 1903. Mackenzie." Type in Herbarium of the New York Botanical Garden.
  35. *Daucus carota* forma *rosea* Millsp., Prel. Cat. Fl. W. Va. 369. 1892. "With rose colored flowers, a frequent form in Monongalia, near Morgantown, and along the Kingwood Pike." Millspaugh. Type in the Herbarium of West Virginia University.
  36. *Phlox Buckleyi* Wherry, Journ. Wash. Acad. Sci. 20: 26. 1930. "Type locality, White Sulphur Springs, Greenbrier County, West Virginia; type specimen collected by S. B. Buckley in June, 1838: in Herbarium of Missouri Botanical Garden."
  37. *Phlox Brittonii* Small, Bull. Torr. Bot. Club 27: 279. 1900. "The specimens upon which the species is based were col-

- lected by Dr. N. L. Britton at White Sulphur Springs, May 1898." (*P. subulata brittonii* Wherry, *Bartonia* 11: 27. 1929).
38. *Convolvulus Purshianus* Wherry, Proc. Penna. Acad. Sci. 7: 163. 1933. Ridge back of Sweet Springs, Monroe Co., Wherry.
  39. *Scutellaria galericulata* forma *albiflora* Millsp., Prel. Cat. Fl. W. Va. 428, 1892. "Kanawha, near Charleston, Barnes." Type in Herb. of Wabash College.
  40. *Houstonia caerulea* forma *albiflora* Millsp., Prel. Cat. Fl. W. Va. 375. 1892. "Grassy places, Permian formations, Monongalia, near Cassville." *Millsbaugh*.
  41. *Lobelia inflata* var. *simplex* Millsp., Prel. Cat. Fl. W. Va. 398. 1892. "Dry places. Randolph, near Cricard P.O. Characters of the species, but simple-stemmed," *Millsbaugh* 483, July 11, 1890. Type in the Herbarium of West Virginia University.
  42. *Vernonia maxima pubescens* Morris, Proc. Biol. Soc. Wash. 15: 25. 1901. "Collected among plants of the species along Hound Creek below Baileysville, Wyoming County, alt. 1100-1200 feet, August 20, 1900, *Morris* 1274. Type specimen is deposited in the U.S. National Herbarium."
  43. *Antennaria propinqua* Greene, *Brittonia* 4: 83. 1899. "Collected only by E. L. Greene, on an open hillside at Harper's Ferry, May 14, 1898; only one large patch seen, and that male." Type in United States National Herbarium.
  44. *Senecio antennariifolius* Britton, in Britton and Brown, Ill. Fl. Ed. 1. 3: 478. 1898. "On loose slate hillside, near White Sulphur Springs, *Allen & Britton; Mackenzie*." Type in Herbarium of the New York Botanical Garden.
  45. *Hieracium alleghaniense* Britton, *Man.* ed. 2. 905. 1905. "In the Alleghany Mountains near Aurora, Preston County, W. Va., August 29, 1898. *Mr. & Mrs. Steele*." Type in the Herbarium of the New York Botanical Garden.

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